

ABSTRACT

In general terms, the present invention relates to an electrical power transmission system using superconductors which is compatible with conventional transmission systems.

In a first aspect, the present invention relates to a method for installing in an electrical power transmission system a connection using a coaxial superconducting cable, comprising the following steps:

- determining the reactance of a conventional cable suitable for the said connection;
- installing the coaxial superconducting cable;
- increasing the reactance of the coaxial superconducting cable, in such a way that the reactance of the superconducting cable is substantially equal to the reactance of the conventional cable.

In particular, the step of increasing the reactance of the coaxial superconducting cable comprises the step of connecting in series with the coaxial superconducting cable an inductive element, preferably made from a superconducting material.